CLAIMS:

1. A magnetic write element comprising a nanophase high magnetic moment material.

2. The magnetic write element of claim 1 wherein the nanophase high magnetic moment material includes coated magnetic nanoclusters.

3. The magnetic write element of claim 1 wherein the nanophase high magnetic moment material comprises nanoclusters of magnetic materials selected from the group consisting of: Fe, Mn, Co, Ni and alloys thereof.

4. The magnetic write element of claim 3 wherein the nanoclusters are coated in flight with a magnetic material selected from the group consisting of: Fe, Mn, Ni, Co and alloys thereof.

5. The magnetic write element of claim 3 wherein the nanoclusters are adsorbed with an electron-donating material selected from the group consisting of: hydrogen and nitrogen.

6. The magnetic write element of claim 1 wherein the nanophase high magnetic moment material comprises a nano-laminated cluster film.

7. The magnetic write element of claim 6 wherein the nano-laminate cluster film comprises:

at least one layer of nanoclusters of magnetic material with high magnetic moments; and

a plurality of matrix layers wherein the nanocluster layers are approximately alternating with the matrix layers.

8. The magnetic write element of claim 7 wherein the magnetic materials are selected from the group consisting of: Fe, Mn, Ni, Co and alloys thereof.

9. The magnetic write element of claim 7 wherein the matrix is a vacuum-deposited magnetic material.

10. The magnetic write element of claim 7 wherein the matrix is formed of a material selected from the group consisting of: Co, Fe and alloys thereof.

11. The magnetic write element of claim 7 wherein the number of nanocluster layers and matrix layers is approximately between 2 and 15.

12. The magnetic write element of claim 1 wherein the nanophase high magnetic moment material forms part of a write pole.

13. The magnetic write element of claim 1 wherein the nanophase high magnetic moment material forms an SUL layer of perpendicular recording media.

14. A transducing head having a write gap, the element comprising:

a bottom pole;

a first high magnetic moment layer located upon the bottom pole at the write gap, wherein the first high magnetic moment layer includes nanophase high magnetic moment material; and

a second high magnetic moment layer adjacent to the write gap opposite to the first magnetic moment layer, wherein the

second magnetic moment layer includes nanophase high magnetic moment material, and

a third magnetic layer plated upon the second magnetic moment layer thereby forming a top pole.

15. The magnetic write element of claim 14 wherein the nanophase high magnetic moment material comprises coated magnetic nanoclusters.

16. The magnetic write element of claim 14 wherein the coated nanoclusters comprise nanoclusters of magnetic materials selected from the group consisting of: Fe, Mn, Co, Ni and alloys thereof.

17. The magnetic write element of claim 16 wherein the nanoclusters are coated in flight with a magnetic material selected from the group consisting of: Fe, Mn, Ni, Co and alloys thereof.

18. The magnetic write element of claim 16 wherein the nanoclusters are adsorbed with an electron-donating material selected from the group consisting of: hydrogen and nitrogen.

19. The magnetic write element of claim 14 wherein the nanophase high magnetic moment materials comprise nano-laminated cluster film.

20. The magnetic write element of claim 19 wherein the nano-laminate cluster film comprises:

at least one layer of nanoclusters of magnetic material with high magnetic moments; and

a plurality of matrix layers wherein the nanocluster layers are approximately alternating with the matrix layers.

21. The magnetic write element of claim 20 wherein the magnetic material are selected from the group consisting of: Fe, Mn, Ni, Co and alloys thereof.

22. The magnetic write element of claim 19 wherein the matrix is a vacuum-deposited magnetic moment enhancing material.

23. The magnetic write element of claim 19 wherein the matrix is formed of a material selected from the group consisting of: Co, Fe and alloys thereof.